

REMARKS

Claims 1-16 are pending. Claims 1, 3-5, 7-9, 11-13, 15 and 16 have been amended without narrowing their scope. Claims 1, 5, 9 and 13 are independent. Favorable reconsideration is respectfully requested.

Claims 13-16 were rejected under 35 U.S.C. § 101 as allegedly being directed to non-patentable subject matter. Applicant traverses.

Claims 13-16 are directed to a machine-readable recording medium that stores a program. Such a medium storing a program is an article of manufacture claim, which is one of the statutory classes. Moreover, the MPEP states that when functional descriptive material, such as a computer program, is recorded on a computer-readable medium, it is statutory since the use of technology permits the function of the descriptive material to be realized. See section 2106.01.

In order to expedite prosecution, and without conceding the propriety of the rejection, claim 13 has been amended without changing or narrowing its scope to make clear that the program causes the optical network transmission apparatus to execute the recited process. This is believed clearly to meet the requirements set forth in Section 2106.01 of the MPEP. Withdrawal of the rejection is respectfully requested.

Claims 1-8 were rejected under 35 U.S.C. § 102(e) over U.S. Patent Publication No. 2005/78659 (Smith et al.). Claims 9-16 were rejected under 35 U.S.C. § 103 over Smith et al. in view of U.S. Patent 6,970,614 (Tsushima et al.). Applicant traverses and submits that the independent claims are patentable over the cited art for at least the following reasons.

Claim 1 is directed to an optical network which is formed by a plurality of optical network transmission apparatuses and a plurality of transmission lines that connect the optical network transmission apparatuses. Each optical network transmission apparatus includes advertisement means for autonomously advertising a usable wavelength in a transmission line

connected to the apparatus, and collection means for autonomously collecting a usable wavelength in a transmission line that is advertised by another apparatus.

The term "advertisement" is defined in the specification as meaning "notification of link information of an apparatus to all other apparatuses within a network." See, e.g., page 2, lines 10-12. The term "collection" means acquisition of pieces of link information of all other apparatuses within a network." See, e.g., page 2, lines 12-14.

By virtue of the recited advertisement means and collection means, a source node can be informed of the wavelength information of the nodes of the network, so that a path can be calculated that will not fail because of wavelength limitations of a node in the path. In calculating a path, the shared information that has been advertised and collected by the various nodes of the network are used to create a path, preventing any failure on the selected path.

On the other hand, Smith et al., creates a path by a source node sending out a request message R. This request message R has a label list that is sent to the first cross-connect. The first cross-connect compares the label list sent by the source node with a label availability table associated with the first cross-connect. The first cross-connect then compares its label availability table to the label list from the source node to create an intersection set. See paragraph [0032]. This intersection set is inserted into the request message R as a reduced label list and the request message R is then forwarded to the second cross-connect. This is repeated until either the message reaches the source node, or until the label list is reduced to zero (empty). If the label list in the message is found to be empty, a request rejection message is sent back to the source indicating a failure, i.e., no wavelengths are available for an end-to-end path.

In contrast to Smith's system, in which attempts to create paths may fail, in the claimed technique, the source node knows beforehand, based on information it has received by the collection means, that the path it chooses will not fail. In the claimed system, a usable path is determined from the shared information that has been advertised/collected by the nodes of the system. Because each

node knows the capabilities of the other nodes, no path failure will occur based on apparatus limitations.


In view of the foregoing, it is believed clear that independent claim 1 is patentable over the Smith reference. The other independent claims also recite substantially similar features and are believed patentable for substantially similar reasons. Tsushima et al. is cited for its teaching of machine-readable media, but does not remedy the above-mentioned deficiencies of Smith as a reference against the independent claims.

The dependent claims are believed patentable for at least the same reasons as their respective base claims.

In view of the above amendments and remarks, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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